

CLAIMS

1. A method for producing carpet squares with carpet pile and a felt back side, including:
- 5 - making a semi-finished product including the carpet pile by tufting, weaving, bonding, felting or other method known in the art;
- selecting felt for forming the felt back side;
- back side coating the semi-finished product with the felt for forming a carpet web;
- punching the carpet web into desired shapes and dimensions for the carpet squares;
- 10 **characterised in that**
- surface coating the felt back side of the carpet web with a curable polymer; and
- curing the polymer for dimensional stabilisation and rigidifying the carpet web before punching.
- 15 2. Method according to claim 1, **characterised in that** bonding the back side coating of the semi-finished product with the felt back side occurs by glueing.
3. Method according to claim 1 or 2, **characterised in that** the semi-finished product or part thereof and the felt back side comprises the same material, preferably a polymer.
- 20 4. Method according to claim 1, 2 or 3, **characterised in that** curable polymer is thermo-hardening and water-based latex as liquid, crème or powder, and that the coating is made by spraying, foaming, smearing on or other suited method of application.
- 25 5. Method according to claim 4, **characterised in that** the curing is performed at a temperature between 60 and 160°C and preferably about 100°C, and that heating, IR or UV irradiation is used for curing the curable polymer.
- 30 6. Method according to any preceding claim, **characterised in that** the felt back side has a gram weight between 200 and 1500 g/m², and preferably over 800 g/m².
7. Method according to claim 6, **characterised in that** the curable polymer is applied

to the felt back side in an amount between 50 and 500 g dry matter/m², and preferably less than 100 g dry matter/m².

8. A plant for producing carpet squares with a carpet pile and a felt back side including
- 5 - a back side coating unit for coating a semi-finished product including a carpet pile with felt back side for forming a carpet web;
- a punching unit for punching the carpet web into desired shapes and dimensions for the carpet squares;

10 **characterised in that** between the back side coating unit and the punching unit there are provided:

- an application unit for surface coating of the felt back side with a curable polymer;
- a curing unit for curing the polymer for dimensional stabilisation and rigidifying the carpet web before punching.

- 15 9. Plant according to claim 8, **characterised in that** the back side coating unit includes a storage and a unwinding unit for previously formed and coiled semi-finished products, and a coiling unit for the formed carpet web, and that the application unit, the curing unit and the punching unit constitute an independent part of a plant.

- 20 10. A carpet square punched out from a carpet web having a back side felt coated carpet pile, **characterised in that** the felt back side has a surface coating of a cured polymer that contributes to dimensional stabilisation and rigidifying the carpet pile.

- 25 11. Carpet square according to claim 10, **characterised in that** the felt back side has a gram weight between 200 and 1500 g/m², preferably more than 800 g/m², and that the coating is applied to the felt back side in an amount of between 50 and 500 g dry matter/m², and preferably less than 100 g dry matter/m².